MAXHOT METALCAST SOLUTIONS SDN BHD
(Importer/Stockist/Supplier: Blasting Abrasives)

PS-BALL - MSDS

PRODUCT from ELECTRIC ARC FURNACE SLAG or BASIC OXIGEN FURNACE SLAG	DATE: JUNE 1, 2025

1. Product/Information

Product Name:
PS Ball(Precious Slag Ball)

Production Process:
PS Ball is manufactured by new technology using EAF, BOF slag generated from steel production process.

Patents:
PS Ball and Production Process of PS Ball have patents through domestic and abroad.

2. Manufacturer Information

Company name:	Jindal Steel & Power Ltd
Company Address:	Steel Plant, Chattisgarh, India.
Company Telephone Number:	+91-1800-3070-9600
Company Fax Number:	+91-1800-208-2008

3. Chemical Composition of Product

Component Ratio (%)						Remark
CaO	Fe2O3	SiO2	Al2O3	MgO	Etc..	
40.4	28.2	11.7	3.0	6.5	10.2	BOF Slag Ball
17.4	44.2	20.0	7.6	6.2	4.6	EAF Slag Ball

4. PHYSICAL/CHEMICAL Properties

Actual Specific Gravity	3.45
Mohs Hardness	7.5
Rockwell Hardness	43
Brightness	Surface Shining
Water Absorptivity	0.42
Unit Mass(kg/m^3)	2.30
Type(Appearance)	Spherical or Angular Shape
Size Range	0.1mm~5.0mm
Color	Black or Light Black

5. Fire and Explosion Hazard Data

Flash Point	N/A
Extinguishing Media	N/A
Special Fire Fighting Procedures	None

Unusual Fire & Explosion Hazards	None
Flammable Limits	N/A
LEL	N/A
UEL	N/A

6. Reactivity Data

Stability	Stable in Spinel Structure
Hazardous Decomposition or Byproducts	Small quantity of dust may be generated when the product is handled
Hazardous Polymerization	Will not occur.
Odor	Free

7. HEALTH HAZARD DATA AND FIRST AID

EXPOSURE LIMITS:

Unless specified otherwise, limits are expressed as a time-weighted average (TWA) concentration for an 8-hour work shift of a 40-hour workweek. Limits for cristobalite and tridymite (other forms of crystalline silica) are equal to one-half the limits for quartz.

TWA : 2 ppm, 5mg/m^3
STEL : 5 ppm, 10mg/m^3
2ppm. (5mg/m^3) OSWA TWA (30 july 1993 58FR 35338)
5ppm, (13mg/m^3) OSWA STEL (6 july 1993 58FR 35338)
5ppm, (13mg/m^3) OSWA TWA
2ppm, ACCGIH TWA
5ppm, ACGIH TWA
2ppm, (5mg/m^3) NIOSH TWA 10 hrs
5ppm, (13mg/m^3) NIOSH
3mg/m^3, (0.5ml/m^3) DFG MAK (Respirable dust fraction)

HEALTH HAZARDS:

Primary Route of Entry:

Inhalation:	Yes
Skin:	Yes
Ingestion:	No
Acute:	
Eye Contact:	Minor irritation to the eyes. Direct contact by larger amounts of material or splashes of wet material may cause effects ranging from moderate eye irritation to chemical burns and blindness.
Inhalation:	Dusts may irritate the nose, throat, and respiratory tract. Coughing, sneezing, and shortness of breath may occur following exposures in excess of appropriate exposure limits.
Skin Contact:	Exposure to dry material may cause drying of the skin with consequent mild irritation. Dry material contacting wet skin or exposure to moist or wet material may cause more severe skin effects including thickening, cracking or fissuring of the skin. Prolonged exposure can cause severe skin damage in the form of (caustic) chemical burns.
Ingestion:	Ingestion of large amounts may cause gastrointestinal irritation and blockage.

Chronic:

Inhalation:	Inhalation of slag dust can cause inflammation of the lining of the nose.
Eye Contact:	Exposure to slag dust may cause inflammation of the cornea.
Skin Contact:	Hypersensitive individuals may develop allergic dermatitis.
Signs & Symptoms of Exposure:	Irritation of eyes, skin and/or respiratory system.
Medical Conditions Generally Aggravated by Exposure:	Inhaling respirable dust may aggravate existing respiratory system disease(s) and/or dysfunctions such as emphysema or asthma. Exposure may aggravate existing skin and/or eye conditions.

EMERGENCY & FIRST AID PROCEDURES:

Eyes:	Immediately flush eye(s) with plenty of clean water for at least 15 minutes, while holding the eyelid(s) open. Beyond flushing, do not attempt to remove material from the eye(s). Contact a physician if irritation persists or later develops.
Inhalation:	Remove to fresh air. Dust in throat and nasal passages should clear spontaneously. Contact a physician if irritation persists or later develops
Skin:	Wash with cool water and a pH-neutral soap or mild detergent intended for use on skin. Seek medical treatment in all cases of prolonged direct exposure to wet product or prolonged wet skin exposure to dry product.
Ingestion:	Do not induce vomiting. If person is conscious, give large quantity of water. Get immediate medical attention.

8. PERSONAL PROTECTION AND CONTROL MEASURES

Ventilation:	Local exhaust or general ventilation adequate to maintain exposures below appropriate exposure limits.
Other:	Exposure levels should be monitored regularly. Exposure levels in excess of appropriate exposure limits should be reduced by all feasible engineering controls, including (but not limited to) ventilation, process enclosure, and enclosed employee work stations.
Respiratory Protection:	When exposure levels exceed or are likely to exceed appropriate exposure limits, follow MSHA or OSHA regulations, as appropriate, for use of NIOSH-approved respiratory protection equipment.
Skin Protection:	Protective gloves, shoes and protective clothing that are impervious to water should be worn to avoid contact with skin.
Eye Protection:	Safety glasses with side shields should be worn as minimum protection. Dust goggles should be worn when excessive(visible) dust conditions are present or anticipated. Contact lenses should not be worn when working with this product.
Hygiene:	Periodically wash exposed skin with a pH-neutral soap. Wash again before eating, drinking, smoking, and using toilet facilities. Wash work clothes after each use. If clothing becomes saturated with wet material, it should be removed and replaced with clean, dry clothing.

9. STORAGE AND HANDLING PRECAUTIONS

Respirable dust may be generated during processing, handling, and storage. The personal protection and controls identified in Section VII of the MSDS should be applied as appropriate.

Keep product dry until used.

Do not store or handle near food and beverages or smoking materials.

10. SPILL,LEAK AND DISPOSAL PRACTICES

The personal protection and controls identified in Section VII of the MSDS should be applied as appropriate.
Steps to Be Taken if Material Is Released or Spilled: Use dry clean-up methods which do not disperse dust into the air. Avoid actions that cause dust to become airborne. Avoid inhalation of dust and contact with skin. Wear appropriate personal protective equipment. Scrape up wet material and place in an appropriate container. Allow the material to dry before disposal.
Waste Disposal Method: Do not attempt to wash material down drains. Dispose of waste materials only in accordance with applicable federal, state, and local laws and regulations.

NOTICE:
Based on research of available data, Titan Florida believes that the information contained in this Material Safety Data Sheet is accurate. The suggested procedures are based on data and experience as of the date of preparation of the MSDS. The suggestions should not be confused with nor followed in violation of applicable laws, regulations, rules or insurance requirements. Titan Floridaís voluntary preparation of this MSDS should not be construed, in any way, as an agreement to be subject to MSHA/OSHA jurisdiction, as applicable.

ABREVIATIONS

ACGIH	American Conference of Governmental Industrial Hygienists	N/A	Not Application
CAS	Chemical Abstract Services	NAPA	National Fire Protection Association
CERCLA	Comprehensive Environmental Response, Compensation and Liabilities Act.	NIOSH	National Institute for Occupational Safety and Health
CFR	Code for Federal Regulations	NTP	National Toxicology Program
CL	Ceiling Limit	OSHA	Occupational Safety and Health Administration
DOT	U.S Department of Transportation	SARA	Superfund Amendments and Recovery Act.
EST	Eastern Standard Time	RCRA	Resource Conservation and Recovery Act.
HEPA	High-Efficiency Particulate Air	TDG	Transportation of Dangerous Goods
HMIS	Hazardous Materials Identification System	TLV	Threshold Limit Value
MSHA	Mine Safety and Health Administration	TWA	Time Weighted Average (8 hours)
KOSHA	Korea of Occupational Safety and Health Administration		

No.119-1, Pusat Perniagaan Bestari, Jalan Permata 1/KS/09,
Bandar Bestari, 41200, Klang, Selangor, Malaysia.

Tel: +603-31226699, +6011-60904278; Email: sales@maxhot.com.my; www.maxhot.com.my